(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 7 April 2005 (07.04.2005)

PCT

(10) International Publication Number WO 2005/031118 A1

- (51) International Patent Classification7: F01B 1/06, 9/06
- (21) International Application Number:

PCT/BG2004/000019

(22) International Filing Date:

23 September 2004 (23.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 108200

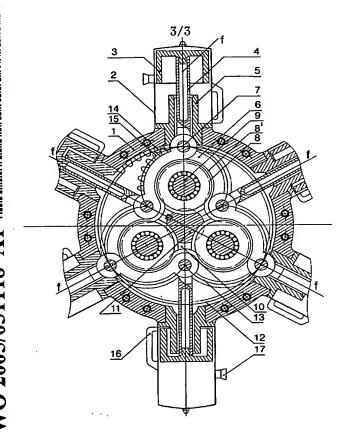
25 September 2003 (25.09.2003) BG

- (71) Applicants and
- (72) Inventors: ENCHEV, Encho Mihaylov [BG/BG]; kv. Trite chuchura bl. 57, vh.O, et.2, ap.4, 6000 Stara Zagora (BG). ENCHEVA, Michaela Encheva [BG/BG]; 48, Milin Kamuk Street, 5th Floor, apt. 14, Lozenets, 1164 Sofia (BG).

- (74) Agent: RAYCHEVA-HADJIGENCHEVA, Krasimira, Kirilova; V. Hugo Street 3, 1124 Sofia (BG).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: INTERNAL COMBUSTION ENGINE WITHOUT CONNECTING ROD AND A METHOD OF ITS CONSTRUCTION



(57) Abstract: The invention relates to the structure of internal combustion engine without a connecting rod and a method of its construction. The proposed method of construction describes the consecutive steps in creating the engine and allows the creation of internal combustion engine without a connecting rod with six and more even number of arc-like units (6) whereat the heating of the opposite arclike units (6) in the center O1 of the engine is removed. The complex mounting and dismounting of the engine shaft is eliminated too, because according to the invention the engine shaft is not articulated of several details, but it is whole, uncut. Besides, the possibility is obtained for a change of the revolutions of the engine shaft (11) without reductor in one and the same stroke frequency of the pistons (3) movement by changing only the number of working cylinders of the engine.

WO 2005/031118 A1



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.